Appendix A: Original Sabbatical Proposal from 2021 September

Appendix B: Python work examples

Appendix C: Submission to a peer reviewed journal

Appendix D: Frostburg Grows weather Station

Appendix E: Research on Climate Change in Appalachia Appendix F: FSU Network for Intersection Feminism

Sabbatical Report

Introduction

This report describes the activities I performed on my sabbatical leave during the 2022 fall semester. The privilege of a sabbatical leave is one that I am incredibly grateful. Having the opportunity to revitalize my professional activities as well as recharge my classroom approach has been invaluable, and I thank FSU for supporting its faculty wellbeing through sabbatical leave.

I have accomplished the following objectives during my sabbatical, the first two planned (as outlined in the sabbatical proposal, Appendix A) and the last two unplanned:

- 1) Objective 1 from sabbatical proposal: Advance the use of computer programming within the geography department.
- 2) Objective 2 from sabbatical proposal: Scientific research on climate change in central Appalachia
- 3) Additional item 1: Formation of a new campus organization to support DEI initiatives
- 4) Additional item 2: Pedagogy development through CTE Workshops

Summary of activities during Sabbatical Leave

My Sabbatical work was varied in that it touched on several areas of faculty evaluation: pedagogical professional development and course updating, service, and academic professional development.

Objective 1: Advance the use of computer programming within the geography department

One of the original goals of my sabbatical was to become proficient in Python, which has become a more common programing language in the field of Geography. My studies were conducted through the completion of learning modules, tutorials, and various reference materials. My ultimate objective was to pass on this new knowledge to students and interested Geography faculty within the University. I used an online resource¹ specifically written for those using Python in the atmospheric and oceanic sciences. This hands-on manual offered many tutorials, examples, and activities using real life datasets. I was able to complete all tutorials and activities from the manual, with a few samples of my work in Appendix B.

With the ease in which large amounts of data can now be collected, it is essential for students to be comfortable with the theory and the application of computer programing to work with geographic data. Currently, I am incorporating the applied learning of Python into a course offered this semester (spring 2023, GEOG469: Principles of Atmospheric Science). In addition, I have been able work on updating the semester long project in GEOG405 (fall 2023) in which students process and analyze climate data. With what I have learned during my sabbatical, students will have the opportunity to learn and utilize a new tool, Python, instead of legacy applications like Microsoft Excel.

In the future, when department course scheduling allows, I will offer a semester long course (GEOG420) in which students will work with real geographic data to learn the elements of the Python programming language. This new programming course will offer students the opportunity to become proficient in a modern programing language that is heavily used in various industries. Furthermore, students will have gained skills to enable them to partake in undergraduate research projects and use examples of their work in their e-portfolios and resumes when applying for continuing studies and/or employment. In addition to a new course, I have two workshop dates scheduled for April 21st and 28th to present introductory theory and application of the Python programming language with

¹ Lin, J. W. (2012). A Hands-On Introduction to Using Python in the Atmospheric and Oceanic Sciences. https://www.johnny-lin.com/pyintro/

colleagues and students in Geography department. These workshops will focus on applied examples of using Python for the purpose of Geographic data handling.

Objective 2: Scientific research on modern climate change in central Appalachia

This fall, I devoted time to refining and formatting a manuscript for submission to a peer-reviewed journal. The paper, titled "Surface radiation sensitivity to the inclusion of the urban land type in a Global Climate Model" was submitted to Sage: Progress in Physical Geography (Appendix C). This research will aid in the scientific understanding of land-atmosphere interaction.

In addition to a paper submission, I partook in the decommission of the weather station that was located Frostburg Grows. Eventual relocation of this weather station will aid in the ability to collect data in Appalachia for future analysis. This weather station was installed during the summer of 2014 with help from Dr. Allen and a previous student (Appendix D). The station and subsequent data were used over the years to show students the parts of a working weather station as well as what the types of measurable data are available. Unfortunately, the landowners are planning to convert the property to commercial use, leading to the end of Frostburg Grows and the need to relocate the weather station. The time sensitive nature to retrieve the station meant that it needed to be immediately, thus becoming an unexpected sabbatical activity. This process involved creating a path through heavy underbrush to the station's location, disassembling the instruments, and relocating them to various storage rooms in Gunter Hall. This semester, students in my Principles in Atmospheric Science (GEOG469) class and I will be reinstalling this station (plus one other) on campus as an experiential learning opportunity in weather station mechanics and data retrieval.

From working through Objective 1, I was able incorporate my new knowledge of the Python programing language into the Appalachian climate change research. The data for this project comes from the NOAA Monthly U.S. Climate Divisional Database (NClimDiv)², which is freely available online. Since my focus is on the central Appalachian region, only data from 18 of the possible 344 CONUS climate divisions³ were used (see Appendix E). There is an immense amount of data to organize per variable (e.g., minimum/maximum temperature, precipitation total, etc.) since there is monthly data from 127 years for each climate division. Using Python to preprocess and analyze the data has been beneficial since I am now able to incorporate using this Appalachian data and analysis into a current course (GEOG469) and in future courses (GEOG405, GEOG330). Initial results show a noticeable increase in both precipitation and average temperature over the central Appalachian region, with highly variable results when considering each individual division's time series. I look forward to incorporating students into the continuation of this work and presenting results at future conferences.

Additional item 1: Form a new organization to support DEI initiatives on campus

The sabbatical leave allowed for me to support FSU's DEI initiative through the creation of an intersectional feminist group to support its faculty, staff, and students. There were two recent current events that occurred following the submission of my sabbatical proposal that made the creation of this group a high priority endeavor. One of the two catalysts was the on-campus demonstration last Spring in which a group from outside of FSU used triggering and disturbing visual imagery as scare tactics to state their stance on reproductive rights. The second catalyst was the US Supreme Court ruling in the Dobbs case. As a result, I contacted several other women on campus, of varying University ranks and backgrounds, to collaborate in the formation of an organization. This new organization is named the FSU Network for Intersectional Feminism (FNIF).

Over the course of multiple planning sessions throughout the semester, we have made significant progress on the charter. My role was to coordinate meetings, set agendas, take the minutes,

² https://www.ncei.noaa.gov/pub/data/cirs/climdiv/

³ https://www.ncei.noaa.gov/access/monitoring/dyk/us-climate-divisions

and to keep up the momentum in our planning and creation of the group. As can be seen in our most recent meeting minutes (Appendix F), our purpose is to "... [to build] a community engaged in the dismantlement of patriarchal systems of oppression using an intersectional approach." In addition to working on the charter and planning campus events for the 2023 spring semester, FNIF also sponsored a campus reading of **My Body No Choice** on November 1st in the Pealer Performing Arts Center. This event provided an opportunity for people to come together for community, dialogue, support, and healing.

Additional item 2: Pedagogy development through CTE Workshops

I participated in two workshops offered through the FSU Center for Teaching Enhancement (CTE). The first workshop was titled "Inclusion and Belonging Workshop" which was offered on 28 October 2022 by Dr. Kelly Bubp. I thoroughly enjoyed this workshop in that I gained several practical ideas and practices to further facilitate a classroom in which students feel a sense of inclusivity that honors their diverse perspectives and experiences. For the past several years I have noticed enhanced anxieties in students which, therefore, made me feel it was important to attend the CTE workshop titled "Be Well, Learn Well Workshop" offered by Dr. Holly Currie on 11 November 2022. The techniques to promote student well-being and learning offered through this workshop are immediately applicable and much needed in this (post?) pandemic world where many people feel consistently overwhelmed and worried about the future.

Sabbatical Proposal Summary

In my eight years at FSU, I have been able to devote my professional life to undergraduate education. Every semester, I strive to improve each course and engage more students than from the previous semester. Although I was able to incorporate some professional development (mostly during the 'off-contract' part of the year), there are academic goals that I have not had the opportunity to pursue. The prospect of sabbatical is one in which I do not take lightly. My passion is and has always been teaching the wonders of the natural world to students, however, I believe that this sabbatical would provide a way to refresh myself as an educator by providing the main resource needed to continue my professional growth: time away from the classroom.

There are two main objectives in my sabbatical work. Although they may seem as if they do not relate to each other, they are in fact inextricably linked. Through the achievement of Objective 1, learning Python and integrating it into courses, I will be able to use this new toolset to be able to conduct the scientific research in Objective 2. I am confident in my ability to pick up this new computer language since I am already proficient in another computer language that I used it in my dissertation in addition to teaching a course on it while in graduate school.

Objective 1:

Advance the use of computer programming within the geography department.

Activities

- a. Learn elements of the Python programming language
- b. Integrate new knowledge of Python into existing courses
- c. Develop new course on Python programming in Geography
- d. Share new Python knowledge with interested Geography faculty

Rationale: As a result of our 2021 program review, surveyed alumni mentioned that they would have benefitted from exposure to programming. The sabbatical activities related to this goal will result in making our students more job ready, competitive in the geospatial marketplace, as well as enhance their e-portfolio.

Benefit to the University: A new course, offered as GEOG420, that will aid in student education, enrichment, and career preparedness. As stated under Action Item 1, student should have an e-portfolio "[...] containing examples of their work that demonstrates they have the skills expected to be successful in professional careers or post-graduate study".

Objective 2:

Scientific research on modern climate change in central Appalachia.

Activities:

- a. Gather data (online) and analyze climate change in central Appalachia
- b. Integrate research work into course content (lecture and activities)
- c. Develop a scientific poster and a manuscript for publication

Rationale: This research would lead to an enhancement of the climatology discipline. In addition, research informed instruction can be applied to several of the core courses in climate science minor. Furthermore, this would also lead to continued opportunities for student involvement in research.

Benefit to the University: Applied research on observed climate change is timely in terms of increased awareness and concern of the changing climate, as well as geographically relevant to the University and the region (Central Appalachia). In addition, this research will provide a new avenue to involve students in undergraduate research (a high impact practice) outside of the classroom. As stated under Action Item 2, "All graduates have had an educational experience that 1) is outside of the classroom and 2) integrates knowledge and skills in their specific area(s) of study."

Sabbatical Proposal/Self Statement

Summary of the various activities of the Sabbatical Leave

The activities that I will engage in during sabbatical are ones that will aid in student education, enrichment, and career preparedness as well as advance my professional development as a scientist. There are two overarching objectives with sequential activities for each. Although these objectives may seem as if they do not relate to each other, they are in fact inextricably linked. Through the achievement of Objective 1, learning Python and integrating it into courses, I will be able to use this new toolset to be able to conduct the scientific research in Objective 2 as well as train students to be able participate in new undergraduate research opportunities. I am confident in my ability to learn this new computer language since I am already proficient in another computer language that I used it in my dissertation in addition to teaching a course on it while in graduate school.

- Objective 1: Advance the use of computer programming within the geography department
 - o Learn elements of the Python programming language
 - o Integrate new knowledge of Python into existing courses
 - o Develop new course on Python programming in Geography
 - O Share new Python knowledge with interested Geography faculty
- Objective 2: Scientific research on modern climate change in central Appalachia
 - o Gather data (online) and analyze climate change in central Appalachia
 - o Integrate research work into course content (lecture and activities)
 - O Develop a scientific poster and a manuscript for publication

Statement of the link of the proposal to the <u>specific impact it will have on teaching</u> and how it is related to the FSU mission.

One of the most important parts of being a science educator is to stay current in terms of scientific progress as well as scientific methods. If educators did not actively prioritize staying current and contributing to their field, then it would be a tremendous disservice to the students in that they would not be adequately prepared for either a continuation of their studies and/or their careers.

Relevance to FSU Mission:

- Strategic Goal I.A Ensure students acquire the essential knowledge and skills needed to succeed.
- Action Item 1: Frostburg State University ensures students have the necessary skills to launch a successful career and be a productive and engaged citizen.

"Graduates produce an e-portfolio containing examples of their work that demonstrates they have the skills expected to be successful in professional careers or post-graduate study.

- Strategic Goal I.B Infuse applied learning throughout the FSU curriculum.
- Action Item 2: All graduates have multiple High Impact Practices (HIPs) with a focus on internships and integrative capstone experiences.
 - o "All graduates have had an educational experience that 1) is outside of the classroom and 2) integrates knowledge and skills in their specific area(s) of study.
- Strategic Goal I.C Integrate innovative practices and technology into the learning process.
- *Strategic Goal III.B* Provide opportunities for student engagement to address community needs in the region.

With the ease in which large amounts of data can now be collected, it is essential for students to be comfortable with the theory and the application of computer programing to work with geographic data. This sabbatical will allow me to engage in a technology-enhanced learning opportunity beyond what I routinely engage in. In addition, this new skillset with be shared with students through the development of a new course (Geog420). This course's pedagogy will be instruction though the use of applied learning in that students will be working with real geographic data to learn the elements of the programming language. Students will be able to use examples of their work from the experiences in this programming course, as well as from the new opportunities

APENDIX A: Original Sabbatical Proposal from 2021 September

in undergraduate research (a HIP), in their e-portfolios and resumes when applying for continuing studies and/or employment. Student work on climate change in this region can be linked addressing several potential community issues. With the detection and evaluation of climate change comes several community implications such as growing season changes (which impact local farmers and the food system of the region), changes in road conditions (county budgeting for snow and ice removal), changes in frequency and intensity of precipitation (potential flooding of roadways and communities), and the list goes on. Climate change and community needs are inextricably linked.

Summary of the expected contribution of the Sabbatical Leave to the faculty member's professional growth and its respective value to the University

My proposed sabbatical activities fall within the FSU mission in that they will aid in my effort to stay current within my field and well as empower my success within my research endeavors.

Relevance to FSU mission:

- Strategic Goal IV.D –Provide professional development opportunities that empower faculty and staff success.
- Action Item 12: FSU provides professional development opportunities for its faculty and staff to ensure they are current in their respective field or area of service.

My first core goal is to advance the use of computer programming within the geography department. Python is a programming language that has become prevalent within the field on Geography, especially within the Climate Science and Mapping Science communities. It allows ease in processing large datasets, performing analyses through the extensive mathematical libraries, as well as integrate with and automate tasks within Geographic Information Systems (GIS). Our department strives to prepare students to be able to apply a geographic perspective when addressing complex issues qualitatively as well as quantitatively. One of the prevailing quantitative tools is to be able to process and analyze datasets, which will only continue to become larger due to our ability to collect more and more data. Through this additional education, I will be able to apply my gained knowledge in both research as well as in course curriculum. In addition, I will be able to as a resource for my colleagues that would also like to integrate this powerful tool into their own research and/or curriculum.

My second core goal is to research modern climate change in central Appalachia. This research project started a few years ago when I supervised a student's senior project on the topic. Through this project, we discovered that there is a lack of research on climate change in this region of interest. Our initial findings indicated that there have been substantial changes in early, late, and total growing season temperatures and precipitation. Any shift in growing season conditions will have a direct effect on farming, and thus the economy of a region. Other climate variables as well as further analyses are needed to better understand this issue and eventually publish the findings. The student presented the initial findings at a national conference (the poster presentation is uploaded in the "Supporting Material" section of the sabbatical application packet). Published work on this topic would be a clear value to the University as well as my own professional achievement in research.

Statement on the evaluation criteria for sabbatical

Feedback from the Dean's office was to provide better clarification on how the rating levels relate to each other. The clarification is that each criteria level includes the criteria levels that came before. For example, a score of a '4' for sabbatical, it would include all activities from the '3' category in addition to the '4' category. A score of a '5' for sabbatical would include all activities from the '3' and '4' categories as well as one of the activities listed in the table under the '5' category. The signed original criteria can be found on the following page.

The revised evaluation criteria for evaluation are:

Rating	Activities	Accomplishments/Evidence	
3	 Learn elements of the Python programming language Integrate new knowledge of Python into existing courses Continue work on gathering data and analyzing climate change in Appalachia 	 Completion of learning modules and tutorials Rewrite/write course work to use Python instead of Excel Integrate research work into course content (lecture and activities) 	
4	 All activities under the '3' rating, and Working draft of a manuscript on climate change in Appalachia Effort to share new Python knowledge with interested Geography faculty 	 Scientific poster presentation, ready to present at a professional conference. Scheduled date(s) and developed a lesson plan for a workshop on Python for Geography faculty 	
5	 All activities under the '4' rating, and Develop new course on Python programming in Geography ~OR~ Finished manuscript on climate change in Appalachia 	 Syllabus, lectures, exercises	

```
#~~~CHAPTER 4-2 = ARRAYs: operations and mo
#2 main methods: for loops and array syntax
           Array operations in FOR LOOPS
       if N.shape(a) != N.shape(b):
    print ('*warning: array a and array b are not the same shape!*')
       shape_a = N.shape(a)
print (shape_a) #(2,4)
        product_ab1 = N.zeros(shape_a, dtype= 'f') #initialize the array to all zeros
        product_abl = n.zerostanape_a, stype

for i in range(shape_a[0]): #loop through 2 rows

for j in range(shape_a[1]): #loop through 4 columns

| product_abl[i,j] = a[i,j] * b[i,j] #m 53 #
                                                                           54
                                                                                    #METHOD 1
                                                                           57
                                                                                    shape_a = N.shape(a)
        #~~Array operations w/ ARRAY SYNTAX~
                                                                                    answer = N.zeros(shape_a, dtype = 'f')
       # more elegant and FASTER way..
                                                                                     #could combine the above 2 lines...doing this for leaning reasons :)
        product_ab2 = a * b #no need to initialize the 60
        print (product_ab2)
                                                                                     for i in range(shape_a[0]):
                                                                                          #~Exercise 14: Write a function to calculate p 63
#I am going to use array syntax, manual has the 64
        def theta (T, P, p0 = 1000.0, k = 0.286):
            #Some documention...good habits! 66

"""Calculate the potential temperature. 67

Returns a NumPy array of potential temp 68
the same size and shape as the input pa 69
37
38
39
40
41
42
43
44
45
46
                                                                                    print (answer)
                  the same size and shape as the input pare reference pressure is given by p0 and k ratio of the gas constant for dry air t heat of dry air at constant pressure. Input parameters:

| :p: Pressure [hPa]. NumPy array or it. Temperature [K]. NumPy array
                                                                                    #METHOD 2 - array syntax using WHERE statements (no loops) 
# NumPy has defined the standard comparison operators in python (e.g., ==, <) to work
                                                                            72
                                                                                             Basically, you will make arrays of booleans (True/False), then you can operate on them using boolean operator NumPy functions. You cannot use Python's built-in # and, or, etc. operators; those will not
                                                                                              for example: print(N.logical_and(a>1, a<=3))
             output = T * (p0/P)**k
             return output
       thetaT = theta (T=273.0, P=750.0) #remember, u
print (thetaT)
                                                                                    #~Example 37 - using where to directly select corresponding values from another array or scalar
                                                                                     a = N.arange(8) #array of 0 to
 53
54
55
                                                                           82
                                                                                    condition = N.logical_and(a>3, a<6)
              ~~TESTING INSIDE AN ARRAY~~~
                                                                                    print (condition) #[False False False False True True False False]
                                                                                    answer = N.where(condition, a*2, 0)
print (answer) # [0 0 0 0 8 10 0 0]
 85
         shape a = N.shape(a)
          answer = N.zeros(shape_a, dtype = 'f')
          #could combine the above 2 lines...doing thi
                                                                           88
                                                                                           is true. For 1-D arrays, the tuple is a one-element tuple whose value is an array listing the indices where the condition is true.
                                                                            89
          for i in range(shape a[0]):
               for j in range (shape a[1]):

| if (a[i,j] > 0.0) and (a[i,j] < 10.0 91
| answer[i,j] = a[i,j] * 2.0 92
                                                                                    #~~Example 38 - using where to return a list of indices
                                                                                    a = N.arange(8)
                    else:
                                                                                    condition = N.logical_and(a>3, a<6) #same as before)</pre>
                                                                                    answer_indices = N.where(condition)
print (answer_indices) #(array([4, 5]),)
                                                                            94
                                                                            95
         print (answer)
                                                                                     answer = (a*2)[answer_indices]
                                                                                    print (answer) #[ 8 10]
         #METHOD 2 - array syntax using WHERE stateme 98
# NumPy has defined the standard compari 99
                 element—wise with arrays. 100
Basically, you will make arrays of boo 101
                                                                                    a = N.reshape( N.arange(8), (2,2,2) ) #(sheet, row, col)
condition = N.logical_and(a>3, a<6)</pre>
                 Basically, you will make arrays or use 101 operator NumPy functions. You cannot u 102 act element-wise.Instead,use the NumPy for example: print(N.logical_and(a>1, 104) 104
                                                                                     answer_indices = N.where(condition)
                                                                                    print (answer_indices) #(array([1, 1]), array([0, 0]), array([0, 1]))

| #2 values pass the test: both in 'sheet' 1, row 0. 0th col and 1st col
                                                                                     answer = (a*2)[answer_indices]
                 N.where(<condition>, <value if true>, 105
          #∞Example 37 - using where to directly select corresponding values from another array or scalar
         a = N.arange(8) #array of 0 to 7
condition = N.logical_and(a>3, a<6)</pre>
         print (condition) #[False False False False True True False False]
answer = N.where(condition, a*2, 0)
print (answer) # [ 0 0 0 0 8 10 0 0]
                another option is to use WHERE with a return tuple of array element indices for which a condition is true. For 1-D arrays, the tuple is a one-element tuple whose value is an array listing the
                indices where the condition is true.
         #~Example 38 - using where to return a list of indices
         condition = N.logical and(a>3. a<6) #same as before)
         condition = N. togical_and(a>>, a<0) #sam
answer_indices = N.where(condition)
print (answer_indices) #(array([4, 5]),)
answer = (a*2) [answer_indices]
print (answer) #[ 8 10]
100
101
         a = N.reshape( N.arange(8), (2,2,2) ) #(sheet, row, col)
condition = N.logical_and(a>3, a<6)</pre>
         swer = (a*2)[answer_indices]
```

Progress in Physical Geography PPG-22-138

Progress in Physical Geography <onbehalfof@manuscriptcentral.com>

Thu 10/27/2022 1:41 PM

To: Tianna A Bogart <tabogart@frostburg.edu>;hanson@udel.edu <hanson@udel.edu>

CAUTION: This email originated from outside of Frostburg State University. Do not click links or open attachments unless you recognize the sender and know the content is safe.

27-Oct-2022

Dear Dr. Bogart:

Your manuscript entitled "Surface Radiation Sensitivity to the Inclusion of the Urban Land Type in a Global Climate Model" has been successfully submitted online and is presently being given full consideration for publication in Progress in Physical Geography.

Your manuscript ID is PPG-22-138.

You have listed the following individuals as authors of this manuscript: Bogart, Tianna; Hanson, Brian

Please mention the above manuscript ID in all future correspondence or when calling the office for questions. If there are any changes in your street address or e-mail address, please log in to ScholarOne Manuscripts at https://nam02.safelinks.protection.outlook.com/?

url=https%3A%2F%2Fmc.manuscriptcentral.com%2Fpipg&data=05%7C01%7Ctabogart%40frostburg.e du%7Cbc03fa5ab10b4b0f69b308dab8427bd2%7Cb8f95ed12a184246810403a67478d3a3%7C1%7C0%7C 638024892947556192%7CUnknown%7CTWFpbGZsb3d8eyJWljoiMC4wLjAwMDAiLCJQljoiV2luMzliLCJBTil 6lk1haWwiLCJXVCl6Mn0%3D%7C3000%7C%7C%7C&sdata=y8aYnnXFYCT81xdDDviuc5LYPQMYpc6Yi 4h9m5WqvRE%3D&reserved=0 and edit your user information as appropriate.

You can also view the status of your manuscript at any time by checking your Author Center after logging in to https://nam02.safelinks.protection.outlook.com/?

url=https%3A%2F%2Fmc.manuscriptcentral.com%2Fpipg&data=05%7C01%7Ctabogart%40frostburg.e du%7Cbc03fa5ab10b4b0f69b308dab8427bd2%7Cb8f95ed12a184246810403a67478d3a3%7C1%7C0%7C 638024892947556192%7CUnknown%7CTWFpbGZsb3d8eyJWljoiMC4wLjAwMDAiLCJQljoiV2luMzliLCJBTil 6lk1haWwiLCJXVCl6Mn0%3D%7C3000%7C%7C%7C&sdata=y8aYnnXFYCT81xdDDviuc5LYPQMYpc6Yi 4h9m5WqvRE%3D&reserved=0.

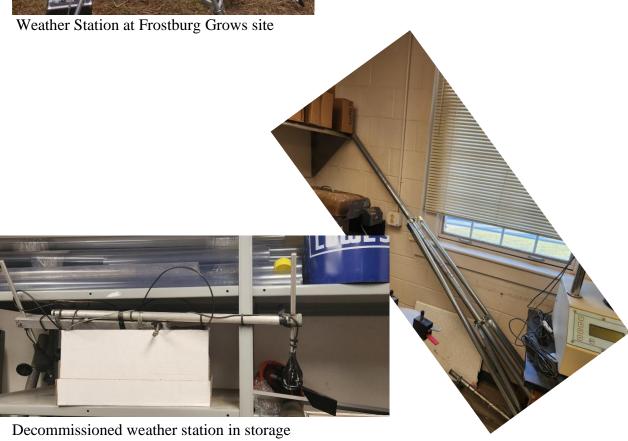
As part of our commitment to ensuring an ethical, transparent and fair peer review process SAGE is a supporting member of ORCID, the Open Researcher and Contributor ID (https://nam02.safelinks.protection.outlook.com/?

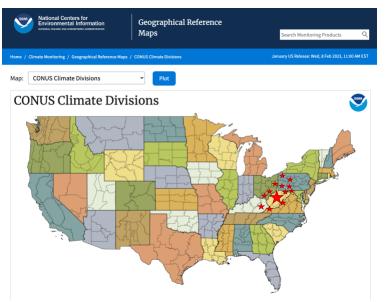
url=https%3A%2F%2Forcid.org%2F&data=05%7C01%7Ctabogart%40frostburg.edu%7Cbc03fa5ab10b
4b0f69b308dab8427bd2%7Cb8f95ed12a184246810403a67478d3a3%7C1%7C0%7C63802489294755619
2%7CUnknown%7CTWFpbGZsb3d8eyJWljoiMC4wLjAwMDAiLCJQljoiV2luMzliLCJBTil6lk1haWwiLCJXVCl6M
n0%3D%7C3000%7C%7C%7C&sdata=SxOg5qp7SV%2Bk68pxL73EtHcJWfEwn2CsVgq5yETDeeg%3D
&reserved=0). We encourage all authors and co-authors to use ORCID iDs during the peer review
process. If you have not already logged in to your account on this journal's ScholarOne Manuscripts
submission site in order to update your account information and provide your ORCID identifier, we
recommend that you do so at this time by logging in and editing your account information. In the event that
your manuscript is accepted, only ORCID iDs validated within your account prior to acceptance will be
considered for publication alongside your name in the published paper as we cannot add ORCID iDs during
the Production steps. If you do not already have an ORCID iD you may login to your ScholarOne account to
create your unique identifier and automatically add it to your profile.

Thank you for submitting your manuscript to Progress in Physical Geography.

Sincerely, Jayne Brian Progress in Physical Geography ppgjournal@sagepub.co.uk







$\underline{https://www.ncei.noaa.gov/access/monitoring/reference-maps/conus-climate-divisions}$

Stars represent the climate divisions used in the Central Appalachian study.

- All 6 divisions in West Virginia
- 4 divisions in Pennsylvania
- 3 divisions in Ohio
- 2 divisions in Maryland
- 2 divisions in Virginia
- 1 division in Kentucky
- 18 total divisions

Maryland T				0.405	
R	0.327934		0.148837	-0.1801	
	Annual Avera			Entire Growing Season	
	1807	1808	1807	1808	
1895	61.658333		76	70.12857	
1896	62.883333	57.28333	76.31429	70.72857	
1897	62.766667	57.90833	75.65714	70.88571	
1898	63.608333	58.46667	76.12857	70.88571	
1899	62.516667	57.96667	76.54286	71.81429	
1900	64.4	58.88333	79.04286	73.6	
1901	61.475	56.11667	75.54286	70.04286	
1902	62.433333	57.55833	75.88571	70.32857	
1903	61.325	56.8	73.78571	69.12857	
1904	59.925	55.95	74.21429	69.61429	
1905	61.766667	57.225	75.84286	70.8	
1906	63.025	58.53333	76.51429	71.42857	
1907	60.666667	56.56667	72.11429	67.2	
1908	63.033333	58.975	76.27143	71.7	
1909	62.491667	58.075	74.31429	69.47143	
1910	62.1	57.875	76.1	71.3	
1911	63.3	59.25833	76.48571	71.94286	
1912	61.7	57.38333	76.01429	71.14286	
1913	64.733333	59.86667	75.9	70.72857	
1914	62.516667	57.53333	77.04286	71.55714	
1915	62.275	57.38333	75.94286	70.51429	
1916	62.816667	58.625	75.7	70.62857	
1917	60.325	55.875	73.12857	68.1	
1918	63	58.46667	76.02857	70.67143	
1919	63.841667	59.53333	76.64286	71.8	
1920	61.258333	56.36667	74.61429	69.01429	
1921	65.841667	61.41667	77.81429	72.8	
1922	64.233333	60.2	77.32857	72.72857	
1923	63.433333	58.69167	76	70.68571	
1924	60.95	55.90833	73.52857	68.15714	
1925	63.125	58.36667	75.58571	69.98571	

Partial screenshot of the spreadsheet with calculated average annual and growing season maximum temperatures for each climate division in Maryland



Index of /data/nclimdiv-monthly/access

climdiv-sp02st-v1.0.0-20230106 climdiv-sp03dv-v1.0.0-20230106

climdiv-sp03st-v1.0.0-20230106

climdiv-sp06dv-v1.0.0-20230106

climdiv-sp06st-v1.0.0-20230106 climdiv-sp09dv-v1.0.0-20230106 climdiv-sp09st-v1.0.0-20230106

climdiv-sp12dv-v1.0.0-20230106 climdiv-sp12st-v1.0.0-20230106 climdiv-sp24dv-v1.0.0-20230106

climdiv-sp24st-v1.0.0-20230106

climdiv-tmaxcy-v1.0.0-20230106 climdiv-tmaxdv-v1.0.0-20230106

climdiv-tmaxst-v1.0.0-20230106 climdiv-tmin-inv-recent-v1.0.0-20230106 climdiv-tmin-inv-v1.0.0-20230106

climdiv-tmincy-v1.0.0-20230106 climdiv-tmindy-v1.0.0-20230106

climdiv-tminst-v1.0.0-20230106 climdiv-tmpccy-v1.0.0-20230106 climdiv-tmpcdy-v1.0.0-20230106 climdiv-tmpcst-v1.0.0-20230106

climdiv-zndxdv-v1.0.0-20230106

climdiv-tmax-inv-recent-v1.0.0-2023010 climdiv-tmax-inv-v1.0.0-20230106 2023-01-06 04:40 1.0M

2023-01-06 04:39 4.3M

2023-01-06 04:40 1.0M

2023-01-06 04:39 4.3M

2023-01-06 04:40 1.0M 2023-01-06 04:40 4.3M 2023-01-06 04:40 1.0M 2023-01-06 04:40 4.3M

2023-01-06 04:40 1.0M 2023-01-06 04:40 4.3M

2023-01-06 04:40 1.0M

2023-01-06 04:32 4.8M 2023-01-06 04:32 313M

2023-01-06 04:39 38M 2023-01-06 04:40 4.2M 2023-01-06 04:40 1.2M

2023-01-06 04:32 4.7M 2023-01-06 04:32 304M 2023-01-06 04:39 38M

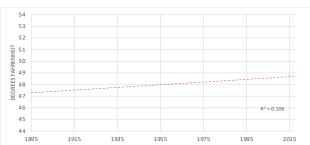
2023-01-06 04:40 4.2M 2023-01-06 04:40 1.2M 2023-01-06 04:39 38M

2023-01-06 04:40 4.2M 2023-01-06 04:40 1.2M 2023-01-06 04:40 4.5M

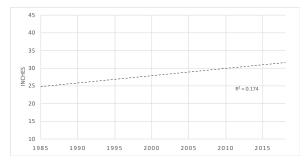
2023-01-06 04:40 1.1M

Parent Directory

Annual Average Temperature in Western Pennsylvania (Divisions #7 – 10)



Annual Average Temperature in Western Maryland (Divisions #7 and #8)



Total Annual Precipitation during the Growing Season (Apr – Oct) in Central Appalachia

FSU Network for Intersectional Feminism (FNIF) - 4th planning meeting

20-Jan-2023, 1-2:30pm, 157 CCIT

In attendance: Tianna Bogart, Ash Lester, Robin Wynder, Renae Mitchell, Angie Luvara Other members: Nicole Mattis, Annie Danzi, Rebekah Taylor

Topics/Discussion items:

- ★ we will decide then our regular meeting time then
 - Renae to send out a survey on semester availability to determine this.
- ★ When do we open the group up to the campus community?
 - Upcoming events through the Women's Studies program:
 - 3 awesome speakers: Early/Mid/Late <u>March</u> (FNIF to sponsor/support these talks)
 - FNIF to have an interest table before/after these talks...very casual, people can sign up for our
 email list.
 - Robin as point person: <u>April 27 (Thurs) Take back the night</u> Use this as our "kick-off" event (April 27th is also global Take Back the Night date) https://takebackthenight.org/hold-an-event/
 - marches, rallies and vigils intended as a protest and direct action against rape and other forms
 of sexual, relationship and domestic violence
 - Tianna (with Angie's guidance) to contact the Foundation about getting some funding for this (the website has a \$1k kit for holding the event)
- ★ Review/edit 'Membership' section of charter
 - Breakout sessions may occur, to comply with FERPA and to respect the sensitive nature of faculty/staff specific issues.
- * Review/edit 'Purpose' and 'Intentions' sections of charter
- ★ Review/edit 'Leadership' section of charter: Cadre Roles/elections?
 - How to avoid white supremacy culture https://www.whitesupremacyculture.info/characteristics.html
 - o Renae to work on this section and we will review next meeting
 - Resources from Angie:
 - detailed information about the consensus process: http://newsite.karenhousecw.org/wp-content/uploads/2013/12/Consenus-Roles-Structures-Tools.pdf
 - information about voting processes with hand signs (there's a lot of hand signaling in consensus processes): https://www.ncfp.org/knowledge/fist-to-five-voting-and-consensus/
 - more information on additional hand signals and how they are used (along with other consensus process info): https://neighborhoodanarchists.org/facilitation
 - We also discussed possibly reading this book, which is about how colonization has shaped universities
 and what decolonizing universities might look like. It's \$10 for the print copy and \$4.95 for the ebook:
 https://www.upress.umn.edu/book-division/books/a-third-university-is-possible
- ★ We want to make a list of vocabulary words (e.g. womanist, feminist, intersectional, etc.) → Angie to start this list → where do we have this list? Printed on each agenda?
- ★ Publicity: webpage? Insta?
 - Start with an instagram (business?) with a google doc link to our charter
 - Eventually set up a link from the DEI office to our insta
 - Eventually have a webpage through the University to help people find us
 - Tianna to email John Lombardi to see if he has any insight if their is an official way to become
 a campus group
- ★ A physical office on campus?
 - Women's studies office? Other spaces are opening up due to the new Health Science building: Brady Health Center, Frampton, Cumberland Hall basement
 - Let's look to the Women's Center at UMBC for ideas:
 - several rooms for use by the group members, a lactation room, kitchen w/ food, microwave and fridge,
 - House a collection of professional attire for students to use for conferences and interviews
 - Winter clothes drive winter coats for students

...continued minutes

FSU Network for Intersectional Feminism (FNIF) Charter

Membership

Open to ALL current FSU campus community members (faculty, staff, students)

II. Purpose (what we do)

We are building a community engaged in the dismantlement of patriarchal systems of oppression using an intersectional approach.

Action priorities include:

- · Serving as a resource and partner for all feminist faculty, staff, and students
- Improving the climate for gender diversity in institutional leadership roles
- Providing feminist mentoring and advocacy for matters related to gender issues, including Title IX
- Hosting events and programming to support reproductive justice, queer and trans liberation, sexual
 assault awareness, gender equity, ending period poverty, gender diversity in academia, and other topics
 as it relates to our purpose.
- · Partnering with other community groups that share our priorities

III. Intentions (how we do)

- We will operate as a non-hierarchical, egalitarian organization.
- We will embody principles of social justice, diversity, equity and inclusion in all of our actions.
- We will hold each other, our communities, and institutions accountable for actions that fail to uphold the principles of DEI and social justice.
- We will uplift and empower individuals with marginalized identities in our communities.
- We recognize the evolving nature of social justice work and are committed to continued learning.

IV. Leadership Cadre

A smaller subgroup of the network that includes at least 1 faculty, 1 staff, and 1 student. (cadre: a group of activists in a revolutionary organization.)

(Renae volunteered work on this section) Leadership Cadre Roles/Ideas:

- Periodic reviews on leadership, leadership summits
- 25% leadership change every year
- Set strategic action list, set group meeting agendas
- Collective leadership that leads through consensus. Quorum is...?
- Transparency

Ongoing work:

Funding?

US Dept of Justice, Office on Violence Against Women: have Grants to Reduce Sexual Assault,
 Domestic Violence, Dating Violence, and Stalking on Campuses

Ideas for Events/Speakers/Initiatives

- Strategic meetings for equity and representation of our interests on all faculty/staff committees
 - how to lift each other's voices in those meetings
 - Suggestions on how to address microaggressions
- Open houses and receptions, Harm reduction tents w/Narcan, DEI in-person trainings
- Sponsor awards, programs, orientations
- Male-targeted Sexual Assault Prevention programming (start with the athletic teams?)
- Connect with local DOVE center (Oakland?)
- Host "Feminist Fridays": student-initiated conversations on topics of gender and equity
- Women's History month (March)/ Sexual Assault Awareness Week (early April), STD Awareness month (April)
 - Clothesline Project https://www.clotheslineproject.info/ The Clothesline Project is a visual display of violence statistics that often go ignored. Each shirt is made by a survivor of violence or by someone who has lost a loved one to violence. The color of each shirt represents a different type of violence.
 - Vagina Monologues performances